

a BAS licensee's current equipment,¹⁰² provided that MSS operators are permitted to make the ultimate decision on which of the available options to select.

d. Where Necessary, MSS Operators Should be Required to Reimburse BAS Incumbents Only for the Book Value of Facilities to be Relocated.

For reasons similar to those set forth in the preceding subsections, the IUSG agrees with Boeing that incumbent licensees should only be able to recover the depreciated basis of their equipment at the time of actual relocation.¹⁰³ As the IUSG explained at length in its comments,¹⁰⁴ to ignore the depreciation of incumbent licensees' equipment in judging the sum owed by MSS licensees to replace that equipment would confer an unfair financial benefit on incumbent licensees — and, in many cases, a taxable profit — that would be contrary to the Commission's own objectives of merely leaving incumbents "no worse off" as a result of relocation.¹⁰⁵ The IUSG therefore objects to APTS' demand that BAS licensees be paid for all costs associated with relocation "without any consideration of age of current equipment."¹⁰⁶ Depreciation represents the decline in the real value of the equipment that BAS licensees use over time, and BAS licensees cannot reasonably demand that the world pretend that time stands still so that they can reap profits from the relocation process. As discussed further below, relocation reimbursement based

¹⁰² See SBE Comments at 4; Boeing Comments at 7.

¹⁰³ See Boeing Comments at 2.

¹⁰⁴ See IUSG Comments at 33-35.

¹⁰⁵ See Microwave Relocation/Cost-Sharing First R&O and FNPRM, 11 FCC Rcd at 8843 (¶ 32).

¹⁰⁶ APTS Comments at 4-5.

on depreciated equipment value (plus a reasonable percentage for associated relocation costs) will also greatly simplify the relocation process by reducing or, in some cases, even eliminating the need for relocation negotiations.¹⁰⁷

**e. Where Necessary, MSS Operators Should be Permitted to Pay
BAS Incumbents to Relocate Their Own Facilities.**

Although the Commission's ET/Microwave relocation rules required new entrants to purchase new facilities for incumbent licensees and install and test those facilities in advance of relocation, the comments filed by SBE, APTS, BST and Cosmos in this proceeding all appear to contemplate that BAS incumbent licensees will receive relocation funds from MSS operators and then purchase and install replacement equipment themselves.¹⁰⁸ The IUSG supports this innovative approach to the relocation process, which appears to be far more efficient than requiring MSS operators to retune or replace equipment at BAS facilities throughout the United States to the varying specifications of each BAS licensee and in accordance with the differing natural and artificial conditions present at each location in question. Provided that BAS incumbents that have been designated for relocation provide MSS operators with reliable evidence

¹⁰⁷ For those entities for which tax-related depreciation is not relevant, the IUSG suggests that a fair market value standard should be employed instead.

¹⁰⁸ See APTS Comments at 7 ("MSS operators should be required to reimburse the displaced BAS licensees for the [relocation] costs prior to the BAS licensees incurring such costs"); BST Comments at 5 ("The Commission . . . must provide a firm plan for payment to LTTS licensees of displacement costs *in advance of any changeover* from use of 17 MHz bandwidth channels to narrower-bandwidth channels") (emphasis in original); SBE Comments at 6 ("TV BAS users electing to purchase replacement equipment with added features should receive a pro rata share of the new equipment cost . . ."); Cosmos Group Comments at 11 ("BAS licensees must be reimbursed for any costs incurred in relocating BAS operations").

of the book value of their facilities or of the cost of retuning those facilities, MSS operators could simply issue payment for the applicable sum plus an appropriate figure for transactional costs. Relocation negotiations would be greatly simplified -- permitting any negotiation period to be significantly reduced -- and the entire relocation process would thereby be dramatically expedited.

The merits of this "payment method" of relocation are apparent in the observation of MSTV/NAB that it may be impossible for BAS incumbents to return to operation in the 1990-2025 MHz band one year after they are relocated in the event that they find their 2025-2110 MHz band facilities less than comparable to their original equipment.¹⁰⁹ Once an MSS system begins operation, as MSTV/NAB notes, the system operator will probably not be able to find engineering solutions enabling it to avoid interference to individual BAS licensees that may wish to be restored to their 1990-2025 MHz facilities.¹¹⁰ If, however, BAS licensees undertake the relocation of their own facilities, they can assure themselves in advance that their new facilities operate to their satisfaction.¹¹¹

The IUSG also believes that the payment relocation method would free the Commission and the parties to this proceeding from the difficult task of establishing, administering and

¹⁰⁹ See MSTV/NAB Comments at 8.

¹¹⁰ See id.

¹¹¹ The IUSG wishes to note, however, that it cannot support self-relocation by BAS incumbent licensees at those incumbents' initiative unless the incumbents do so at their own risk and expense. The IUSG/ICO Relocation Plan calls for the relocation of incumbent licensees only in the specific 2 GHz bands that MSS operators may elect to clear for their own use, and there may be many incumbent licensees in a given band that need not be relocated because, for example, their operations can be shifted to existing vacant BAS channels to make room for MSS operations instead. MSS operators should not be required to pay for relocations that BAS incumbents undertake of their own accord and for their own purposes.

conforming to a standard for any equipment needed to replace existing BAS facilities. So long as BAS licensees supply MSS operators with reliable evidence of the book value of those facilities requiring relocation, BAS licensees can use the payments received from MSS operators to purchase their own facilities that will operate to their desired specifications without the need to debate whether or not the new equipment satisfies an abstract comparability standard. The IUSG submits that the simplicity of the payment method will therefore redound to the benefit of BAS and MSS licensees alike.¹¹²

f. The Commission Must Provide for A Sunset on Relocation Cost Reimbursement.

MSS entities agree that the Commission should establish a sunset date for relocation payments as a means of ensuring the timely departure of incumbent licensees from the 1990-2025 MHz band.¹¹³ The IUSG once again urges the Commission to establish a firm sunset date of January 1, 2005,¹¹⁴ and notes that Constellation advocates a date of only 30 days later.¹¹⁵

Although several broadcasting entities counsel the Commission to dispense with a sunset date on relocation cost reimbursement, their arguments gloss over the fundamental issues at stake. APTS voices worries that a sunset date would give MSS operators the incentive not to enter

¹¹² The IUSG must oppose the unwieldy and convoluted equipment replacement standard proposed by MSTV/NAB, see MSTV/NAB Comments at 4-5, which is the very antithesis of the expeditious regulatory mechanisms necessary to complete relocations in the 2 GHz band in time for the commencement of operations of the first 2 GHz MSS system in the third quarter of the year 2000.

¹¹³ See Iridium Comments at 2-3; Globalstar Comments at 4; Constellation Comments at 5; IUSG Comments at 39-40.

¹¹⁴ See IUSG Comments at 40.

¹¹⁵ See Constellation Comments at 5.

certain rural markets until the sunset date passes.¹¹⁶ MSTV/NAB and SBE appear to agree that, so long as the Commission requires a nationwide, simultaneous relocation of 2 GHz BAS incumbent licensees, no incumbents will remain in the 1990-2025 MHz bands after the relocation date and no sunset date is therefore required.¹¹⁷

What these commenters fail to mention is that, in the absence of a sunset date, incumbent licensees would have no incentive ever to reach an agreement with MSS operators during relocation negotiations and could drag out the negotiation and relocation process until any and all of their demands -- however unreasonable they may be -- are met. Valuable as good faith guidelines are in negotiations, the IUSG believes that incumbents would have little difficulty under this scenario in finding reasons to reject an agreement for as long as they might deem necessary.

The Commission's policy decision to establish a sunset date in its ET/Microwave proceedings was designed to give incumbent licensees an alternative: either they could reach agreement with new entrants and receive financial and technical assistance in relocating their facilities, or they could enjoy an extended but finite period of time in which to continue operation undisturbed in their then-current bands. Upon the arrival of the sunset date, those incumbents that had not yet relocated would be required to do so at their own expense. The Commission established this tradeoff so that new entrants could be assured of a clear band in which to operate by a date certain.¹¹⁸ It is a just and reasonable accommodation of interests.

¹¹⁶ See APTS Comments at 7-8.

¹¹⁷ See MSTV/NAB Comments at 20; SBE Comments at 5.

¹¹⁸ See Microwave Relocation/Cost-Sharing First R&O and FNPRM, 11 FCC Rcd at 8859 (¶¶ 66, 67).

Although the IUSG urges the Commission to adopt a phased transition plan that would enable MSS operators to relocate incumbent licensees from the 2 GHz band as the need arises -- and although the IUSG hopes that any relocation negotiation process will be simplified by adoption of its proposed book value payment method -- the time will come when enough MSS operators need to make use of the 1990-2025 MHz band that the entire band must be cleared of incumbent operations. As BAS incumbent licensees will by January 1, 2005 have had ample opportunity to continue their present operations while preparing to relocate to the new 2 GHz BAS bands -- in a manner comparable to that made possible by the Commission's ET/Microwave policies -- they cannot legitimately demand after that date that they also be paid to relocate their existing facilities.

4. The Commission Should Follow the Recommendations of Those Commenters Advocating Prompt, Expeditious and Fair MSS/BAS Relocation Negotiations.

The IUSG heartily endorses the views of those commenters that at least appear to seek the prompt establishment and speedy execution of the MSS/BAS negotiation process. APTS urges that the Commission mandate negotiations from the start, and that such negotiations ensue as soon as possible.¹¹⁹ MSTV/NAB urges the Commission to abandon the voluntary negotiation period required by the ET/Microwave rules and to adopt only a mandatory negotiation period instead.¹²⁰ Cosmos, too, seeks the elimination of the voluntary negotiation period, and requests that the Commission simplify negotiations by providing guidelines regarding spectrum, technology

¹¹⁹ See APTS Comments at 6.

¹²⁰ See MSTV/NAB Comments at 16.

and implementation.¹²¹ The IUSG believes that the voluntary negotiation period should be considered to have expired, given the amount of time that has already elapsed since the issuance of the Commission's NPRM in this proceeding and the filing date of the pending 2 GHz MSS applications, and also directs the Commission's attention to MSTV/NAB's observation that the voluntary negotiation period was widely regarded as a mistake in the Commission's PCS proceeding because of the extent to which it complicated and delayed relocation.¹²² In any case, and as noted earlier herein, the IUSG believes that the adoption of its proposed payment method would simplify and abbreviate any negotiation period.

a. The Commission Should Ignore the Transparent Efforts by Certain Parties to Slow the Negotiation Process.

Given its helpful comments, it is unfortunate that MSTV/NAB also advocates a two-year mandatory negotiation period that would needlessly prolong MSS/BAS discussions.¹²³ It is also ironic that MSTV/NAB recommends that negotiations not begin until 60 days after issuance of the effective date of the Commission's order in this proceeding, and seeks to reserve the option of extending the negotiation period still further.¹²⁴ SBE, for its part, recommends use of one year

¹²¹ See Cosmos Group Comments at 11.

¹²² See MSTV/NAB Comments at 16.

¹²³ See id. at 16.

¹²⁴ See id. at 16 & n. 27. The IUSG also takes exception to MSTV/NAB's absurd request that any relocation scheme (a) set a time limit on negotiation compensation, but (b) also provide that if no agreement is reached, new entrants seeking spectrum must pay all costs to relocate incumbents, complete all activities necessary to implement new facilities for the incumbents, and build and test the new facilities to ensure comparability to those they replaced. See id. at 11-12. The point of any relocation negotiations can only be to come to an agreement as to
(continued...)

voluntary and one year mandatory negotiation periods that would not, by its own admission, permit the commencement of MSS operations until June 1, 2001 at the earliest.¹²⁵

Not to be outdone, several MSS operators (none of which will be ready to enter the 2 GHz MSS market until 2003 at the earliest) vie with one another to present the Commission with the most extended possible negotiation process. Constellation recommends the use of both voluntary and mandatory negotiation periods, and suggests that those periods be tied to the dates on which MSS licenses are granted and to the implementation schedules for the MSS systems to be operated in the 2 GHz MSS bands (most of which, as Constellation itself states, will not be operational until somewhere between 2003 and 2005 at the earliest).¹²⁶ Constellation also urges that the Commission permit MSS and BAS representatives to negotiate a transition plan, an endeavor that could easily occupy the parties for many months if not years.¹²⁷ Boeing, too, urges that the Commission leave the most critical issues surrounding relocation for resolution by the negotiating parties, including the establishment of fundamental information on the nature of existing BAS facilities.¹²⁸ Iridium (which favors a nationwide, simultaneous relocation process) appears to assume the use of both voluntary and mandatory negotiation periods, and proposes

¹²⁴(...continued)

the terms of relocation, and MSTV/NAB cannot be permitted to skew the process in BAS licensees' favor by requiring, albeit in vague terms, the very outcome that BAS licensees desire.

¹²⁵ See SBE Comments at 5.

¹²⁶ See Constellation Comments at 6.

¹²⁷ See id. at 6.

¹²⁸ See Boeing Comments at 3, 6-7.

that negotiations be used to address a host of complex issues such as the sequence in which incumbents will migrate to new spectrum, timetables for relocation of various incumbent groups, and the most appropriate method for effectuating relocation.¹²⁹

The IUSG asks the Commission to see through these delaying tactics, and to promptly establish a speedy negotiation process designed merely to hammer out the fine points of a pre-arranged set of relocation procedures. Under the IUSG/ICO Relocation Plan, each MSS operator would negotiate at its own pace once it is conditionally licensed and has met the applicable coordination milestones. Negotiations post-dating issuance of the Report and Order in this proceeding would be exclusively mandatory and would last no longer than one year, beginning with respect to each incumbent licensee that requires relocation upon notice to the incumbent by the relocating MSS operator that such relocation is necessary. Thus, negotiations would be conducted on a rolling basis, ending for all incumbents on the earlier of one year from the date on which the last incumbent to be relocated is notified of the need for relocation of its facilities by the last MSS operator to undertake such relocation, or on the sunset date for relocation reimbursement. The IUSG believes that such a negotiation process would provide more than sufficient time to resolve any relocation issues between incumbents and MSS operators, while enabling each MSS operator to make the necessary arrangements to enter the 2 GHz MSS marketplace when it is ready to do so.

¹²⁹

See Iridium Comments at 7.

b. Meaningful MSS/BAS Negotiations Cannot Begin Until BAS Licensees File the Information Sought in the Information Request Endorsed by IUSG Members.

In order for any meaningful negotiations to begin between MSS operators and BAS incumbent licensees, MSS operators require the information sought in the Request for Mandatory Submission of Information filed on July 30, 1998.¹³⁰ That information would include, among other things, the nature and extent of 2 GHz incumbent BAS licensee facilities and operations. Without such information, as the Commission has now repeatedly been informed, MSS licensees have no way of knowing with which incumbent 2 GHz BAS licensees they may or may not need to negotiate.¹³¹ In TMI's words, MSS applicants "are now 'flying blind' as to a crucial aspect of their future business" because the Commission has refused to require the filing of the requested information.¹³²

Although MSTV/NAB, SBE and Cosmos offer limited information on BAS facilities and operations in their comments,¹³³ it is by no means detailed or specific enough to permit MSS

¹³⁰ See Request for Mandatory Submission of Information, ET Docket No. 95-18, RM-7927, PP-28 (filed July 30, 1998) ("Information Request").

¹³¹ See IUSG Comments at 27; Petition for Expedited Reconsideration of BT North America Inc., Hughes Telecommunications and Space Company, ICO Services Limited, Telecomunicaciones de Mexico and TRW Inc., ET Docket No. 95-18, RM-7927, PP-28 (filed December 23, 1998) at 13-14.

¹³² TMI Comments at 5. Boeing argues that neither MSS licensees nor the Commission currently have sufficient information regarding BAS operations and equipment to propose a specific transition/relocation plan, and states its belief that the success of negotiations is in part contingent on the speed with which terrestrial licensees are forthcoming with detailed information about their existing facilities. Boeing Comments at 3.

¹³³ See MSTV/NAB Comments at Exhibit 1; Cosmos Group Comments at 10.

operators to determine which facilities may need to be relocated or to develop an accurate estimate of the cost of the relocation effort to be undertaken by each MSS operator under a transition plan such as that recommended by the IUSG. MSTV/NAB's protests that a more detailed or more current survey of existing BAS equipment would be "burdensome" and "would not be useful for estimating the compensation that will eventually be paid"¹³⁴ are nonsense; the cost of assembling the needed information per system at this time is both minimal and irrelevant, as BAS licensees would have to provide it in negotiations in any event, and MSS operators are in a far better position to judge the utility of such information to the development of their business plans than is MSTV/NAB.

SBE professes to have been offended by the Information Request because it would require frequency coordinators to compile certain information even though many are volunteers.¹³⁵ All such red herrings aside, the IUSG would be happy to receive the requested information from any BAS industry sources that are able and can be required to provide it.¹³⁶

Cosmos is somewhat more helpful, recommending that "[b]roadcasters should be required to submit their equipment needs to MSS licensees so that they can establish budgets."¹³⁷ The

¹³⁴ MSTV/NAB Comments at 20 n.33.

¹³⁵ See SBE Comments at 8-9. Most frequency coordinators are, in fact, employed by the affected incumbent licensees, many of which are television broadcast systems.

¹³⁶ See SBE misreads the Information Request to require frequency coordinators to provide details about equipment identification and costs; such information would obviously come from the BAS licensee itself.

¹³⁷ Cosmos Group Comments at 9.

IUSG, however, urges the Commission to require the submission of all of the requested information immediately rather than waiting until MSS 2 GHz licenses are issued.

c. The Commission Should Permit Only Licensed MSS Entities That Have Met Established System Milestones to Participate In Negotiations.

As indicated above, a majority of commenters addressing the issue favor either collective or individual negotiations between the MSS and BAS industries, *as appropriate*. The IUSG urges the Commission to give MSS licensees the option of selecting either negotiating mechanism, as their proprietary business plans may often require the resolution of issues with individual broadcast entities that are neither relevant nor appropriately revealed to outside parties. With respect to those cases where collective negotiations are appropriate, the IUSG will naturally conduct negotiations with any BAS industry representative(s) designated or approved by the Commission.

The IUSG must oppose MSTV/NAB's suggestion that the Commission require all MSS applicants to participate in the negotiation process in some joint fashion.¹³⁸ The IUSG believes strongly that MSS entities should not be eligible to participate in negotiations unless and until they have received MSS 2 GHz licenses, and until such time as they have passed appropriate system milestones that the Commission should establish. Were the Commission to permit or require unlicensed or insufficiently developed systems to join in collective negotiations with incumbent licensees, it would run the grave and probable risk that "paper" satellite systems, or systems that are still years from operational status, could deliberately slow the negotiation process so as to hamper early market entry by their competitors. The Commission must not let the provision of

¹³⁸ See MSTV/NAB Comments at 15 & n.24.

new MSS to the user public be delayed by such anticompetitive behavior.

The IUSG also notes APTS' suggestion that collective negotiations regarding BAS incumbent licensee relocation follow a centralized negotiating plan that takes into account each broadcast market's needs.¹³⁹ The IUSG has no doubt that APTS is correct that the needs of different broadcast markets differ significantly, and believes that its phased transition plan is well-suited to take those needs into account. By proceeding to relocate BAS incumbent licensees one channel at a time, the plan would better enable all parties to the negotiations to address market-specific concerns instead of overwhelming them with the issues facing BAS licensees in all channels and all markets all at once.

d. The Comments Filed Reflect the Importance of Strengthening the Good Faith Guidelines Applicable to MSS/BAS Negotiations.

Not surprisingly, no commenter in this proceeding opposed the imposition and enforcement of good faith guidelines with respect to negotiations between MSS operators and 2 GHz terrestrial incumbent licensees. Nevertheless, the vagueness of most endorsements of the good faith guidelines reflects the lack of confidence that many commenters appear to have in the guidelines' effectiveness.¹⁴⁰ Moreover, the accusations of bad faith that MSTV/NAB and SBE level at MSS applicants in their comments even before negotiations begin portend an acrimonious negotiation process.¹⁴¹ The IUSG therefore reiterates its recommendation that the Commission

¹³⁹ See APTS Comments at 6.

¹⁴⁰ See, e.g., Iridium Comments at 7 (Commission should apply "some adaptation" of the good faith guidelines in Section 101.73 of its rules).

¹⁴¹ See MSTV/NAB Comments at 17; SBE Comments at 3, 5.

add greater clarity and force to the good faith guidelines set forth at 47 C.F.R. § 101.73, which it has proposed to apply to MSS/BAS relocation negotiations.¹⁴²

B. The IUSG Urges The Commission To Adopt FS Relocation Rules Which Recognize That MSS/FS Sharing Is Feasible And That Provide For the Expedited Delivery Of MSS To The U.S.

As made clear in its comments, the IUSG believes that the ET/Microwave policies when applied to primary FS incumbents must reflect the Commission's unambiguous decision to permit the relocation of only those primary FS incumbents in the 2165-2200 MHz band which receive harmful interference from MSS operations.¹⁴³ With this overarching principle in mind, the IUSG responds to those comments addressing the specifics of FS relocation.

1. The Commission Should Confirm That the Policies Governing the Relocation of FS Operations Are Premised on the Feasibility of MSS/FS Sharing And That Relocation Is Only Required Where FS Incumbents Receive Harmful Interference From MSS Operations.

When it affirmed its earlier decision limiting relocation of FS incumbents to those incumbents that receive harmful interference from MSS systems (where such interference cannot be avoided), the Commission clearly recognized the feasibility of MSS/FS sharing in the 2 GHz bands.¹⁴⁴ The overwhelming majority of commenters, including most of those representing the interests of FS licensees, either agree or do not challenge the Commission's basic assumption regarding this matter.¹⁴⁵ Only the AAR asserts otherwise, claiming that MSS/FS sharing is

¹⁴² See IUSG Comments at 38-39.

¹⁴³ See *id.* at 40-44.

¹⁴⁴ See MO&O, FCC 98-309, slip op. at 13 (¶ 27).

¹⁴⁵ See, e.g., API Comments at 10 (acknowledging that MSS systems may not cause
(continued...))

“highly unlikely,” and that therefore MSS licensees should be required to relocate all FS operators.¹⁴⁶

In its comments, AAR offers no technical support for its assertion, and instead relies on three proceedings wherein it alleges the Commission “concluded” that sharing between ubiquitous satellite user terminals and terrestrial wireless systems is not feasible.¹⁴⁷ AAR’s claim notwithstanding, numerous studies exist which show that frequency sharing between non-GSO MSS and FS systems in the space-to-earth direction should be feasible, as the Report and Order

¹⁴⁵(...continued)

harmful interference to incumbent FS operations “until after some significant loading of subscriber units has occurred”); Medina Comments at 8 (“In certain circumstances, MSS licensees may be able to avoid relocation costs by sharing spectrum with the incumbent microwave licensees.”). See also Celsat Comments at 2; Inmarsat Comments at 6.

¹⁴⁶ See AAR Comments at 4-8.

¹⁴⁷ See id. at 5-6 (discussing Redesignation of the 17.7-19.7 GHz Frequency Band, Blanket Licensing of Satellite Earth Stations in the 17.7-20.2 GHz and 27.5-30.0 GHz Frequency Bands, and the Allocation of Additional Spectrum in the 17.3-17.8 GHz and 24.75-25.25 GHz Frequency Bands for Broadcast Satellite-Service Use, *Notice of Proposed Rulemaking*, IB Docket No. 98-172 (FCC 98-235) (released September 18, 1998); Amendment of Parts 2 and 25 of the Commission’s Rules to Permit Operation of NGSO FSS Systems Co-Frequency With GSO and Terrestrial Systems in the Ku-Band Frequency Range and Amendment of the Commission’s Rules to Authorize Subsidiary Terrestrial Use of the 12.2-12.7 GHz Band by Direct Broadcast Satellite Licensees and Their Affiliates, *Notice of Proposed Rulemaking*, ET Docket No. 98-206 (FCC 98-310) (released November 24, 1998); and Allocation and Designation of Spectrum for Fixed-Satellite Services in the 37.5-38.5 GHz, 40.5-41.5 GHz, and 48.2-50.2 GHz Frequency Bands; Allocation of Spectrum to Upgrade Fixed and Mobile Allocations in the 40.5-42.5 GHz Frequency Bands; Allocation of Spectrum in the 46.9-47.0 GHz Frequency Bands for Wireless Services; and Allocation of Spectrum in the 37.0-38.0 GHz and 40.0-40.5 GHz for Government Operations, *Report and Order*, IB Docket No. 97-95 (FCC 98-336) (released December 23, 1998). The IUSG notes that two of the three proceedings cited by AAR involve NPRMs and, thus, reflect no definitive conclusions on the part of the Commission.

of the Conference Preparatory Meeting to the WRC-95 concluded.¹⁴⁸ Moreover, the proceedings cited by AAR address frequency sharing between the Fixed Satellite Service ("FSS") and FS in the 11 GHz, 18 GHz and 40 GHz bands, and thus have no relevance to the instant proceeding. In sum, AAR's claim of sharing infeasibility has no basis in fact, which may explain why AAR was the only party to make such a claim.¹⁴⁹

AAR's comments also demonstrate a fundamental misunderstanding of the relocation obligations of MSS licensees by raising the prospect of FS interference to MSS operations.¹⁵⁰ AAR's concern is beside the point, as the relocation of a primary FS incumbent licensee is required only where the incumbent receives harmful interference from an MSS licensee, not vice versa. In other words, an MSS licensee has the discretion to receive any level of interference from FS transmitters that it deems acceptable, as well as the prerogative to decide whether or not to request relocation of an FS incumbent that interferes with its operations.¹⁵¹ Accordingly, the Commission should ignore AAR's irrelevant concerns over the impact of FS interference on MSS operations.

¹⁴⁸ See Report of the Conference Preparatory Meeting to the WRC-95 at 26-27.

¹⁴⁹ In the event that an MSS operator does cause harmful interference to a primary FS licensee, the IUSG reminds the Commission that existing procedures provide for the coordination of MSS and FS operations, and that relocation would be required only after exhaustion of other efforts to remedy the situation. See Response to Petition for Clarification, ET Docket No. 95-18 (filed by ICO on February 22, 1999).

¹⁵⁰ See AAR Comments at 7.

¹⁵¹ Indeed, SBC noted that it may be reasonable to maintain FS links in parts of the Southwest United States "and wait to see if a new licensee will receive any interference from the links." SBC Comments at 5.

2. The Commission Should Not Adopt Any Negotiation Period That Would Prevent or Delay Any MSS Operator from Commencing Operations.

As noted previously, several commenters representing the interests of FS licensees¹⁵² advocated longer voluntary and mandatory negotiation periods than the one-year periods proposed by the Commission¹⁵³ and supported by the IUSG.¹⁵⁴ Also as noted before, the interest in extending the negotiation process apparently results from a concern over a simultaneous nationwide transition to the Commission's new spectrum plan — a concern that adoption of the phased IUSG/ICO Relocation Plan would alleviate. Accordingly, the Commission should reject any calls for a negotiation plan that would prevent or delay any MSS operator from commencing operations. The IUSG urges the Commission to adopt with respect to FS incumbent licensees the same one-year mandatory negotiation period that it recommends with regard to BAS licensees in Section III.A.4.a. above.

For similar reasons, the Commission should also deny the request of APCO for a three-year voluntary and two-year mandatory negotiation period for public safety licensees.¹⁵⁵ Given the length of time that all incumbent FS licensees — public safety licensees included — have had

¹⁵² See supra n. 39.

¹⁵³ See Third NPRM, FCC 98-309, slip op. at 23 (¶ 50).

¹⁵⁴ See IUSG Comments at 43.

¹⁵⁵ See APCO Comments at 3-4.

notice of pending relocation, the IUSG believes that it is not unreasonable to establish the same one-year negotiation periods for public safety incumbents.¹⁵⁶

3. Voluntary Negotiations For FS Should Begin When 2 GHz MSS Applications Were First Accepted For Filing.

Two FS parties take exception with the Commission's suggestion to commence the voluntary negotiation period on the date on which 2 GHz MSS applications were first accepted for filing (i.e., July 22, 1997).¹⁵⁷ API argues that it would be unreasonable for the voluntary negotiation period to have begun before the Commission adopts rules governing relocation in the 2 GHz band, and instead advocates a voluntary period commencing on the adoption date of such rules.¹⁵⁸ APCO proposes a start to the voluntary period tied to the date on which an MSS licensee receives its final grant of license and notifies an incumbent that it desires to begin the negotiation process.¹⁵⁹

In its comments, the IUSG supported the Commission's suggestion to commence the one-year voluntary period on July 22, 1997,¹⁶⁰ and no arguments advanced by either API or APCO convince the IUSG to alter its position. Indeed, the IUSG believes that basing the start of the voluntary negotiation period on the date of adoption of rules or the grant of a license would ignore the fact that the reallocation of the 2165-2200 MHz band to MSS will be effective on

¹⁵⁶ See Emerging Technologies First R&O and Third NPRM, 7 FCC Rcd at 6890-91 (¶¶ 22-26).

¹⁵⁷ See Third NPRM, FCC 98-309, slip op. at 20 (¶ 44).

¹⁵⁸ See API Comments at 7-8.

¹⁵⁹ See APCO Comments at 4.

¹⁶⁰ See IUSG Comments at 43.

January 1, 2000. Thus, in the interest of complying with U.S. international commitments regarding the establishment of 2 GHz MSS and expediting the provision of MSS to the U.S. consumer public, the IUSG requests that the Commission adopt its own suggestion to begin the voluntary negotiation period on the date on which 2 GHz MSS applications were first accepted for filing — or, better yet, do away with it altogether.

4. Requests For FS Self-Relocation Should Be Rejected As Contrary to ET/Microwave Relocation Principles.

In their comments, API and UTC advocate reimbursement of FS incumbents who voluntarily relocate their systems by subsequent licensees who benefit from the clearing of spectrum.¹⁶¹ The IUSG strongly opposes these requests for self-relocation as inconsistent with the overarching principle that there can be no obligation to relocate a primary FS incumbent unless and until an MSS licensee causes harmful interference.¹⁶² Self-relocation of FS violates this principle by permitting an FS incumbent to move unilaterally out of the 2165-2200 MHz band and then to seek reimbursement for the relocation even in cases where the relocation may not have been necessary because no harmful interference to FS operators would have occurred.¹⁶³ The IUSG believes that the calls for self-relocation should be seen for what they are — an attempt

¹⁶¹ See API Comments at 14-15; UTC Comments at 7-8.

¹⁶² See Third NPRM, 98-309, slip op. at 13 (¶ 27).

¹⁶³ API's suggestion to extend the self-relocation right to FS incumbents who complete self-relocation prior to the effective date of the rules confirming the right to reimbursement or who self-relocate to leased services would only exacerbate this problem, as it would enlarge the class of FS incumbents eligible to seek self-relocation. See API Comments at 14 and Petition for Reconsideration and Clarification of the American Petroleum Institute, WT Docket No. 95-157, at 4-7 (filed April 16, 1997).

to finance, at MSS operators' expense, FS incumbents' self-initiated relocation from the 2 GHz band — and accordingly urges the Commission not to adopt any form of self-relocation.

5. The Commission Should Not Extend the Length Of The Sunset Period Beyond January 1, 2005, or Extend the Notice Period Beyond Six Months.

a. The Sunset Period

As discussed above, the IUSG urges in its Comments that the Commission set the commencement of its proposed 10-year sunset period so as to ensure a timely departure of incumbent licensees from the 2 GHz bands.¹⁶⁴ The IUSG recommends that the Commission establish a firm sunset date of January 1, 2005, by which incumbent licensees (both BAS and FS) must have vacated the 2 GHz bands or demonstrated compatibility with unconstrained MSS operations in those bands.¹⁶⁵ AAR and APCO oppose the implementation of any sunset provision and, in so doing, display a misunderstanding of what the sunset period is designed to achieve.

In its comments, AAR maintains that FS relocation requires compensation regardless of when relocation occurs.¹⁶⁶ However, the Emerging Technology relocation principles do not guarantee the reimbursement of relocation expenses, and do not require that the obligation of an

¹⁶⁴ See Globalstar maintains that the sunset period for FS should be shortened from the proposed 10 years. See Globalstar Comments at 4. Although the IUSG agrees with Globalstar's position regarding the length of the FS sunset period, it must challenge Globalstar's seemingly contradictory assertion that a potentially long lead time in launching operations of MSS systems means that no MSS licensee may be proposing relocation to FS licensees in the near future. See *id.* The IUSG reminds the Commission that ICO anticipates imminent launch of its first satellite and commencement of service in the United States in the third quarter of the year 2000.

¹⁶⁵ See IUSG Comments at 40.

¹⁶⁶ See AAR Comments at 9.

emerging technology licensee to reimburse relocated incumbents continue indefinitely. Rather, as the Commission has previously concluded, those principles incorporate a sunset date so as to provide certainty to the relocation process and to provide incumbents with an incentive to relocate to other bands.¹⁶⁷ The AAR's argument that the elimination of a sunset period will somehow "encourage" an expedited relocation negotiation directly contradicts the Commission's findings, and therefore must fail.¹⁶⁸

APCO argues that a sunset provision, if adopted, could risk leaving public safety communications systems without any microwave replacement facilities.¹⁶⁹ Notwithstanding the fact that FS incumbent licensees have been on notice for 13 years of the likelihood that relocation of their facilities will be required, the dangers APCO posits are merely speculative and therefore cannot justify a departure from established Commission policy. APCO also suggests that a sunset provision, if adopted, should be extended over a period of 30 years to take into consideration the long life spans of 2 GHz microwave equipment.¹⁷⁰ This suggestion is simply untenable given the urgent need to make 2 GHz spectrum available for MSS use and the consequent importance of

¹⁶⁷ See Microwave Relocation/Cost-Sharing First R&O and FNPRM, 11 FCC Rcd at 8859 (¶¶ 66, 67).

¹⁶⁸ See AAR Comments at 8.

¹⁶⁹ See APCO Comments at 2-3.

¹⁷⁰ See id. at 3. APCO may have an ulterior motive for suggesting a 30-year sunset period. APCO is on record in the ET/Microwave relocation proceeding as stating that "most incumbents have long-term plans to replace their analog systems with digital systems once the useful life of current equipment has expired and/or adequate funding has been found." Microwave Relocation/Cost-Sharing First R&O and FNPRM, 11 FCC Rcd at 8859-60 (¶ 67) (emphasis added). The IUSG urges the Commission not to adopt relocation policies that serve merely as long-term funding mechanisms for incumbent licensees.

establishing the proper incentives for FS licensees to negotiate productively with MSS licensees.¹⁷¹

b. The Notice Period

In its comments, SBC recommends that the six-month notice period, wherein the new licensee must give the incumbent licensee six months to vacate the spectrum once the sunset period expires, be extended to 12 months for relocations involving negotiations with a state or federal agency and to 18 months for relocations involving international coordination.¹⁷² SBC provides no evidence that more than six months will be required to complete such procedures. Without more, the IUSG does not believe that relocations involving governmental approval or international coordination rise to the level of “special circumstances” that merit a notice extension.¹⁷³ Moreover, regardless of which sunset period the Commission eventually adopts, FS incumbents will have had notice of impending relocation for 13 years, which should provide each affected incumbent with more than ample time to complete its relocation.

¹⁷¹ See also API Comments at 11 (recommending either a sunset period of at least 15 years or a 10-year sunset period commencing at the onset of the involuntary relocation period (following a voluntary negotiation period)). In a petition still pending before the Commission in the Commission’s proceeding on Amendment of the Commission’s Rules Regarding a Plan for Sharing the Costs of Microwave Relocation, API recommended that the Commission eliminate any sunset period. See Petition for Reconsideration of the American Petroleum Institute, WT Docket No. 95-157, at 6 (filed July 12, 1996) (“API Petition I”); API Comments at 11. For the same reasons discussed above, the IUSG urges the Commission to deny API’s request.

¹⁷² See SBC Comments at 5-6.

¹⁷³ See Microwave Relocation/Cost-Sharing First R&O and FNPRM, 11 FCC Rcd at 8860 (¶ 68) (citing the lack of alternative spectrum or other reasonable option as examples of “special circumstances” warranting an extension); see also 47 C.F.R. § 101.79(b)(1).

6. The Commission Should Deny API's Request to Redefine the Throughput of Comparable Facilities.

The ET/Microwave rules require emerging technology licensees to provide incumbent licensees with comparable facilities as a condition for involuntary relocation, based on three factors: communications throughput, system reliability and operating costs.¹⁷⁴ In its comments, API maintains that its members have developed some of the best private FS systems in the world, and thus deserve a new definition of throughput to account for the systems purchased by incumbents with reserve capacity to meet future needs.¹⁷⁵

The IUSG objects to this request because it is little more than a thinly veiled attempt to shift the risk of business decisions away from FS incumbents and to MSS licensees. FS licensees presumably purchase reserve capacity with the expectation that the acquisition will pay off in the future. The public interest cannot possibly be served by obligating MSS licensees — and ultimately MSS customers — to subsidize those FS licensees left with unused excess capacity resulting from risk-assessment business decisions that prove inaccurate.¹⁷⁶ At a minimum, FS licensees who purchased excess capacity after 1992, when incumbent licensees were reasonably on notice of pending relocation, do not deserve a subsidy with respect to such capacity.¹⁷⁷

¹⁷⁴ See 47 C.F.R. 101.75(b).

¹⁷⁵ See API Petition I at 6.

¹⁷⁶ Such is especially true in those cases where an FS licensee purchases excess capacity with the intent to sell the capacity at a later date for a profit. The IUSG submits that the Commission cannot safely assume that any excess FS capacity was purchased for purposes other than resale.

¹⁷⁷ See Emerging Technologies First R&O and Third NPRM, 7 FCC Rcd at 6890-91 (¶¶ 22-26).

Common sense and equity require that the Commission deny API's request to redefine the throughput factor of comparable facilities.¹⁷⁸

7. The Commission Should Adopt Its Proposal To Divide Evenly The Relocation Costs Involving FS Paired Links.

In the context of the auction band (i.e., 2110-2150 MHz), the Commission proposed — and the IUSG supported¹⁷⁹ — a cost-sharing plan that evenly divides the costs of relocating FS paired links between the initial and subsequent new entrant licensees without any “depreciation” to account for early entry.¹⁸⁰ Most commenters appear to agree with the Commission's proposal, and, significantly, no commenter in this proceeding argues to the contrary.¹⁸¹ As API accurately points out, application of the depreciation factor would penalize early MSS licensee entrants, unjustly enrich subsequently entering licensees, and discourage the prompt deployment of new

¹⁷⁸ API made two other requests in its July 12, 1996 API Petition I that the Commission should also reject. First, API requested a lifting of the two percent cap on the amount an incumbent licensee may receive as reimbursement for its legitimate transaction costs. See API Petition I at 8. API offered, however, no evidence that such a cap would not be reasonable and only speculated that, under such a two percent cap, incumbents “could face a potential deficiency.” Id. Second, API requested that the Commission permit an independent cost estimate only during the involuntary negotiations period, and not beforehand. See id. at 5. This request should be denied because, for the reasons stated in Section III.B.4.b. supra, meaningful negotiations between MSS operators and FS operators require immediate disclosure of the information sought in the Information Request.

¹⁷⁹ See IUSG Comments at 58-59.

¹⁸⁰ See Third NPRM, FCC 98-309, slip op. at 23 (¶ 51). Under this proposal, a subsequent licensee who benefits from a paired link relocation will be obligated to pay in full for that portion of the initial licensee's expenditure from which the subsequent licensee benefited, rather than paying a lesser, depreciated amount. See id.

¹⁸¹ See, e.g., API Comments at 6; Globalstar Comments at 8; Inmarsat Comments at 6; Iridium Comments at 8; UTC Comments at 7.

services.¹⁸² On these grounds, the Commission has ample justification to adopt its proposal to eliminate depreciation in the cost-sharing context.¹⁸³

C. The Commission Must Not be Goaded Into Adopting Relocation Cost Sharing Policies That Treat MSS Licensees Inequitably.

1. MSS Licensees Should Only Be Required to Pay to Clear Spectrum That They Use, and Only if They Cannot Share with Incumbent Licensees.

As indicated in its comments and in Section II above, the IUSG believes that each MSS licensee should be required to assume relocation or relocation reimbursement responsibility regarding incumbent licensees only in spectrum used by the MSS licensee.¹⁸⁴ The IUSG also believes that MSS licensees capable of sharing spectrum with 2 GHz incumbent licensees should not be required to pay for, or share, the cost of subsequent relocations of such incumbent licensees required by the entry of new MSS licensees.¹⁸⁵

These same views appear to underlie the comments of other MSS applicants. Globalstar,

¹⁸² See API Comments at 5. The IUSG also agrees with Inmarsat's observation that, in the event an MSS licensee would have been able to share with the incumbent FS system in the 2165-2200 MHz band, the MSS licensee should not be required to contribute to or reimburse relocation costs necessitated by the introduction of other systems in the 2110-2150 MHz spectrum. See Inmarsat Comments at 6.

¹⁸³ The IUSG believes that the inherent inequity of the depreciation factor applies regardless of who is sharing relocation costs. Thus, Globalstar is incorrect to draw a distinction between cost-sharing involving a MSS licensee and a new wireless service licensee at 2110-2150 MHz and cost-sharing involving two MSS licensees. See Globalstar Comments at 8-9.

¹⁸⁴ See IUSG Comments at 47.

¹⁸⁵ See *id.* at 62-63. For a more thorough discussion of the IUSG's recommendations regarding the sharing of incumbent licensee relocation costs among MSS licensees, see IUSG Comments at 45-64.

for example, states that it may be appropriate for satellite systems that can share with terrestrial incumbent licensees not to pay relocation costs for incumbent stations licensed within an MSS frequency assignment that is being used exclusively by a different satellite system.¹⁸⁶ Similarly, Constellation recommends that a CDMA system not be required to contribute to the relocation of incumbent licensee operations if the relocation is necessary to accommodate a TDMA system (with which the CDMA system obviously cannot share spectrum).¹⁸⁷

The IUSG must take issue, however, with Constellation's position that a CDMA system should not be required to reimburse costs incurred by a TDMA system to relocate incumbent licensees where both MSS systems' assigned frequencies overlap those of the incumbent licensee.¹⁸⁸ Where one MSS system uses bands cleared by another MSS system, it would work a grave injustice on the MSS system that cleared the bands to permit the earlier entrant's competitor to benefit from those efforts at no cost while leaving the earlier entrant to pay them by itself.

The IUSG also opposes Iridium's argument that all MSS licensees should be required to contribute to a common fund for relocation expenses on grounds that all will share in the benefits

¹⁸⁶ See Globalstar Comments at 5. Globalstar also suggests that, where two or more MSS licensees are authorized to operate co-frequency, the cumulative effect of interference from all systems must be considered and each system should be liable for reimbursement of the relocation costs paid by the other systems sharing the spectrum. See *id.* The IUSG views this suggestion as consistent with its positions regarding relocation cost sharing, and supports it provided that satellite systems are held liable for relocation costs only where their operations in fact contribute to the cumulative effect of interference on terrestrial incumbent systems. Where interference to terrestrial incumbents is caused by the subsequent MSS entrant alone, however, that entrant should be required to pay the entire cost of relocating those incumbents.

¹⁸⁷ See Constellation Comments at 2.

¹⁸⁸ See *id.* at 2.

of clearing the 2 GHz band.¹⁸⁹ The IUSG believes that MSS licensees can only legitimately be held to benefit from the clearing of spectrum that they actually use. In any event, Iridium's view appears to be tied to the notion of a nationwide, simultaneous relocation of 2 GHz incumbent licensees -- a relocation method that, as discussed at length above, the IUSG believes is neither feasible nor advisable.

2. The Commission Should Not Require MSS Operators to Reimburse One Another for Variations in the Cost of Clearing Different Portions of the 1990-2025 MHz Band.

Iridium and Boeing both suggest that the Commission should apportion relocation costs among MSS licensees so as to account for possible differences in the cost of clearing various portions of the 2 GHz bands.¹⁹⁰ Neither party offers any evidence that such cost differences exist. More importantly, however, and as noted by Constellation, different MSS system operators will surely have differing perceptions of the need for the relocation of a particular incumbent licensee facility based on differences in each MSS system's technical considerations and market

¹⁸⁹ See Iridium Comments at 3 & n.5. Globalstar, too, suggests that all MSS licensees will benefit equally from the relocation of BAS incumbent stations in the 2025-2110 MHz band. See Globalstar Comments at 6. The IUSG disagrees with Globalstar for the same reasons that it disagrees with Iridium, but concurs with Globalstar that it would be inappropriate for the Commission to apportion costs among MSS licensees for the relocation of incumbent stations based on each MSS licensee's uplink frequency assignment. See *id.* The relocation cost burden of each MSS licensee should be based on the actual cost of relocating incumbent operations in the bands actually used by the MSS licensee, not on a theoretical value assigned on the basis of the bandwidth of the frequencies employed by the MSS licensee. See IUSG Comments at 52-53.

¹⁹⁰ See Iridium Comments at 5 & n.12; Boeing Comments at 4.

assessments.¹⁹¹ Any MSS licensee wishing to expend the funds necessary to clear a particular portion of the 1990-2025 MHz band will obviously have good reasons for doing so, and the sum that it is willing to spend for that purpose will be the measure of its belief in the viability of its system operations. Should any MSS licensee wish instead, under the IUSG's transition scenario, to use bands currently employed by a prior MSS entrant, it will be free to coordinate to do so and to reimburse the prior MSS entrant for its full expenditures in clearing the relevant bands in the first place. It should not be the responsibility of MSS licensees to subsidize the business decisions of their competitors by assisting them in paying to clear bands that will provide them with optimal desired service capabilities. Rather, the choice to clear and enter such bands versus other bands should be considered part and parcel of the many decisions any 2 GHz MSS operator must make in deciding how to position itself in the market.¹⁹²

3. The Commission Must Require Full Reimbursement for Relocation Expenditures, Including the Cost of Capital, Regardless of When the Relocating Party Entered the Market.

Finally, the IUSG vehemently objects to Boeing's assertion that earlier MSS entrants should be required to pay a heavier share of the cost of relocating incumbent licensees than later entrants on grounds that "the benefit of being first in the marketplace far outweighs the burden of

¹⁹¹ See Constellation Comments at 2.

¹⁹² TMI argues that the Commission should have addressed the fact that some entities seeking to provide MSS service are not seeking U.S. Earth station licenses in this proceeding, and states that parties holding space segment authorizations should be able to obtain reasonable partial reimbursement for relocation costs from their Earth station license customers. See TMI Comments at 6-7. This issue, too, is a business matter that the Commission should leave for MSS system operators and their Earth station licensee customers to resolve.

bearing the costs of relocation."¹⁹³ Globalstar appears to take the same position, suggesting that, at least under certain circumstances, the Commission should reduce the reimbursement of relocation costs that a subsequent MSS entrant is required to pay to a prior entrant in order to account for "an advantage in time of entry."¹⁹⁴ As the IUSG has stated above, early entrant MSS systems should not be penalized for their initiative in being first to market, nor should their slower competitors be rewarded with discounted relocation costs (and the IUSG notes that no party has presented any convincing means of, or economic basis for, determining the appropriate size of the unjust "first-to-market" penalty that Boeing and Globalstar request). Rather, all MSS licensees using spectrum cleared by prior MSS entrants must be required to reimburse the earlier entrants for the full cost of clearing the bands that the subsequent MSS entrant uses, including the associated cost of capital.¹⁹⁵

The IUSG asks the Commission to consider the consequences of adopting the policy advocated by Boeing and Globalstar. Picture, for example, an MSS Licensee A that clears BAS incumbent licensees from existing BAS Channel 1 and begins to provide service. Now picture two subsequent arrivals that enter the MSS market at the same time: an MSS Licensee B that clears BAS Channel 2 and begins to provide service, and an MSS Licensee C that elects to enter the market by using a portion of BAS Channel 1 cleared by MSS Licensee A. Under the approach recommended by Boeing and Globalstar, MSS Licensee C would be required to reimburse MSS Licensee A for only a portion of the sum that MSS Licensee A spent to clear

¹⁹³ Boeing Comments at 4.

¹⁹⁴ Globalstar Comments at 5 n.8.

¹⁹⁵ See IUSG Comments at 58.

BAS Channel 1, on grounds that MSS Licensee A obtained an advantage by being first to market. MSS Licensee B, however, would be required to pay the full cost of relocating incumbent licensees from BAS Channel 2 by itself. Thus, quite apart from the unfair financial loss that MSS Licensee A would incur with respect to MSS Licensee C, MSS Licensee C would also obtain a wholly unwarranted competitive advantage over MSS Licensee B -- even though MSS Licensee B and MSS Licensee C entered the market at exactly the same time.

Whether or not the policy advocated by Boeing and Globalstar was appropriately applied in the Commission's ET/Microwave proceedings, the IUSG believes that any Commission policy producing the outcome described above could only be described as arbitrary and capricious. The IUSG urges the Commission not to be lured into making such a grave mistake.

IV. CONCLUSION

For the foregoing reasons, the IUSG asks that the Commission adopt the recommendations set forth herein and in the IUSG Comments, and proceed to establish all necessary rules and procedures for the provision of 2 GHz MSS at the earliest possible time.

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